PREPARATION OF TOBACCO HAVING REDUCED CONTENTS OF NICOTINE AND TAR

BRIEF SUMMARY OF THE INVENTION

The present invention relates to a method for the preparation of tobacco, specifically to a method for the preparation of tobacco having reduced contents of nicotine and tar by adding playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*) and peach kernel (persicae semen) or Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)) into tobacco leaves which have been cut into a specified size to reduce the toxicity of tobacco, to remove the nicotine and tar contained in the tobacco and to improve the fragrance of tobacco, by which an improvement of health can be achieved by smoking the tobacco.

Playcodi radix (broad bellflower) of 2～3 years old, ginseng radix (*Panax ginseng*) of 1 year old and peach kernel (persicae semen) or Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)) are dried under shade and are pulverized into a size of 100-130 meshes and are mixed together in an equal proportion.

The mixture of playcodi radix (broad bellflower), ginseng radix (*Panax*

ginseng) and peach kernel (persicae semen) or Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)) is mixed to tobacco leaves which have been cut into a specific size at the proportion of 0.9% herb mixture and 99.1% tobacco leaves to manufacture cigarette and/or tobacco, thereby improving fragrance of and reducing the content of nicotine and tar in tobacco.

The formula can be changed by 60% of the sliced tobacco leaves which contain 0.9% herb mixture to 39.1% Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)) or 59.6% tobacco leaves to 39.5% Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)).

As mild smoke produced by the tobacco product of the present invention causes no coughing and phlegm will neither displease the smoker himself nor the people around him. Furthermore, as Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)) prevents helps to prevent mouth from becoming dry and removes bad odor, it will help promote the health of the smoker and relieves resistance to smoking and provides fresh and pleasant feeling.

DETAILED DESCRIPTION OF THE INVENTION

PREPARATION OF TOBACCO HAVING REDUCED CONTENTS OF NICOTINE AND TAR

The present invention relates to a method for the preparation of tobacco, specifically to a method for the preparation of tobacco having reduced tar and nicotine content by adding playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*) and peach kernel (persicae semen) or Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)) into tobacco leaves which have been cut in a specified size to reduce the toxicity of tobacco, to remove the nicotine and tar contained in the tobacco and to improve the fragrance of tobacco, by which an improvement of health can be achieved by smoking the tobacco.

In general, since tobacco smoke has a great and serious toxicity, tobacco smoke causes much harms to a smoker himself as well as to those around the smoker.

In addition, nicotine and tar contained in the tobacco are carried on the tobacco smoke and then introduced and accumulated in the lung of the people to cause a lung cancer and an esophageal cancer and to arise problems that tobacco smell remains in the mouth and the mouth becomes dry and rough on smoking.

In addition, there is another problem that persons around one who is smoking also inhale the tobacco smoke containing nicotine and tar to cause an indirect harm of the tobacco smoke.

As a result, nicotine and tar generated from the tobacco are absorbed into a human body to cause various diseases such as oral cavity carcinoma, pharynx cancer, laryngeal cancer, esophageal cancer, pancreas cancer, kidney cancer, bladder cancer, lung cancer, uterine carcinoma, heart disease, etc.

Under such circumstances, the former United States President Bill Clinton has officially declared that tobacco shall be treated as an addictive drug, the World Health Organization Director-General Gro Harlem Brundtland has declared a war against tobacco, and European Parliament has determined to ban all tobacco advertising and sponsorship after 2006.

As tobacco has been internationally blamed for a cause of various disease owing to nicotine and tar and considered as an addictive drug, many tobacco companies in the world have extensively studied to develop a method to remove tar and nicotine, but nicotine and tar in tobacco are still not removed.

As known from oriental medicine and in the Tong-Eui-Bogam (Encyclopedia of Oriental Medicine) efficacy and effects on a human body of broad bellflower (playcodon), ginseng (*Panax ginseng*), peach kernel and Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)) are as follows:

The efficacy of broad bellflower (platycodon) lies in "Chung-Pye-Ha-QI (cleaning lung and lowing (pacifying) "QI") and "Keo-Dam-Bae-Nong" (the discharge of phlegm and drainage of pus).

The efficacy on a human body lies in a discharge of phlegm, a cough remedy, a Bae-Nong (drainage of pus) on a pronunciation disorder in the throat, scarlet fever (this disease is well taken by 6～7 years old children and characterized in a sudden chill, a face blushing and a skin eruption).

Specifically, it is used when a cough symptom is resulted from common cold, upper air-passages infection, acute bronchitis, pneumonia, etc, or when sputa have a fishy smell owing to acute tonsillitis, acute sore throat, lung abscess, etc.

In case of scarlet fever, an internal use of 10% extract of playcodi radix (the root of broad bellflower) is good for reducing pyrexia (having fever) and throat pain. Keeping an olive in a mouth is good for anti-inflammation of the throat.

Meanwhile, a broad bellflower (platycodon) activates the five viscera (of heart, liver, spleen, lungs and kidneys) and the six entrails (of gall blader, stomach, small and large intestines, the paunch, the bladder and the bowels) and decomposes and counteract poisonous materials in a human body.

The efficacy of ginseng radix lies in Tae-Bo-Won-QI (Replenishing and supplementing the primordial QI), An-Sin-Ik-Ji (Tranquilizing the mind to improve the wisdom), Keon-Bi-Ik-QI (Activating the spleen to improve QI), Saeng Jin (Promoting the product of body fluid), etc.

It is also used for saving life in case of emergency.

Especially, it is used for a state of weak pulse due to function imperfection of the heart and blood vessel system by various causes, the chill feeling in the legs and arms, Ja-Han (a symptom that a person morbidly sweats too much), etc.

It is used for Bi-Wi-QI-Heo (The primordial QI of the viscera and stomach are weak). Especially, it can be applied for Sang-Bok-Bi-Man (A disease feeling oppressed in the chest and gasping for breath) causes by hepatitis, chronic gastritis, peptic ulcer disease (PUD) or other factors, lack of appetite, diarrhea, vomiting, etc.

It can be used for anemia together with drugs for nourishing of the blood.

It can be used for asthma and dyspnoca caused by Pye-Sin-Yang-Huh (The Yang-Qi lacks in the lung and kidney, which causes a symptoms of quivering from cold or shivering with cold).

It is used for polydipsia (thirst) caused by diabetes or dehydration owing to fever. Especially, it is very effective for a mild case of diabetes, that is, it lowers the level of blood sugar and reduces the elimination of urine sugar. For a serious case of diabetes, it mainly alleviates polydipsia (thirst) and general prostration.

It is used for a nervous breakdown. Especially, it reduces heart flutter, calms down the agitation, and improves a trance state.
It is used for a weakness of sexual function. Especially, it is effective in an erection imperfection and a premature ejaculation.

In addition, it has an effect of cancer prevention.

The efficacy of peach kernel lies in Pa-Hyul-Geo-Huh (disentangling and removing the bad blood which has been congested and entangled in the body) and Yoon-Jo-Hwal-Jang (moistening the dried body to activate the intestines).

It is used for disease relating to extravasated blood, for example, Hyul-Eo-Kyung-Tong (pain in blood vessel caused by extravasated blood), intestinal pain in the abdominal region, Kyung-Hang-Bul-Chang, dark-red blood, small amount of blood, menstrual irregularity, a disease in which the flat of the

tongue is purple, a disease in which extravasated blood lumps around the tongue to form spot(s), maeg sap, Chim-Wan (symptom of prostration due to weak QI), etc.

The peach kernel is used for an internal hemorrhage due to Ta-Bak-Yom-Jwa (tissue distortion by a stroke or blow), and a pain, regardless of new or old and internal or external wound.

It is used for a constipation caused by intestinal dryness. Especially, it is suitable in a constipation followed by an internal wound and a constipation caused by lack of the intestine's move.

The peach kernel is used as an adjuvant for an acute appendicitis and a lung abscess.

Eum-Yang-Kwak (dried leaves of Epimidii herbal tea (*Epimedium koreanum*)) functions as a vital tonic of Yang-Qi and Eum-Qi in cells and organs of human body. And it facilitates the circulation of blood in the five viscera and the six entrails and promotes the vital energy on thirst and fatigue.

It shows an immune activity against cancer cells and tissues, and also shows a vital activity in diabetes and constipation when it is applied for a long time.

It can be understood that broad bellflower radix, ginseng radix and peach kernel, and Eum-Yang-Kwak (dried leaves of *Epimedium koreanum*), all of which have been employed in the oriental medicine, are beneficially used for a human body.

THE EMBODIMENT AND OPERTION OF THE INVENTION:

MANUFACTURING PROCESS

MANUFACTURING PROCESS 1

PROCESS I

Playcodi radix (broad bellflower) of 2～3 years old, ginseng radix (*Panax ginseng*) of 1 year old and peach kernel (persicae semen) or Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)) are dried under shade for a specific period.

The above herb materials are dried up to the water content of playcodi radix (broad bellflower) 6～10%, ginseng radix (*Panax ginseng*) 10～14% and peach kernel (persicae semen) harvested in June-August 6～10%, respectively.

PROCESS II

The dried playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*) and peach kernel (persicae semen) pulverized into a size of 100～130 meshes. the size that cannot infiltrate through a cigarette filter. A small amount of glycerin may be applied.

PROCESS III

The powders of dried playcodi radix (a broad bellflower), ginseng radix (*Panax ginseng*) and peach kernel (persicae semen) obtained through the Process 2 is mixed into cigarette leaves from which cigarettes will be made.

MANUFACTURING PROCESS 2

PROCESS I

Playcodi radix (broad bellflower) of 2～3 years old, ginseng radix (*Panax ginseng*) of 1 year old and peach kernel (persicae semen) and Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)) are dried under shade for a specific period.

The above herb materials are dried up to the water content of playcodi

radix (broad bellflower) 6～10%, ginseng radix (*Panax ginseng*) 10～14%, peach kernel (persicae semen) and eum-yang- kwak (dried leaves of epimedii herbal tea (Epimedium koreanum)) 3～7%, respectively.

PROCESS II

Playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*) and peach kernel (persicae semen) are pulverized into a size of 100～130 meshes to a size they would not infiltrate through a cigarette filter. A small amount of glycerin may be applied on the powder.

PROCESS III

Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)) obtained through Process I is cut to the same size of the specific size tobacco leaves were cut.

PROCESS IV

The powder of playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*) and peach kernel (persicae semen) obtained through Process II and Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)) obtained through Process III are mixed with tobacco leaves from which

cigarettes will be made.

MANUFACTURING PROCESS 4

Onto the tobacco leaves and Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)) that were cut at a specific size before the mixture is processed into cigarette machine the powdered playcodi radix (a broad bellflower), ginseng radix (*Panax ginseng*) and peach kernel (persicae semen) are sprayed evenly at a rate of 0.3%, respectively.

EXAMPLE 1

PROCESS I

Playcodi radix (broad bellflower) of 2～3 years old, ginseng radix (*Panax ginseng*) of 1 year old and peach kernel (persicae semen) harvested in June～August are dried under shade for a specific period to obtain 300 g of Playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*) and peach kernel (persicae semen), respectively.

The above herb materials are dried up to the water content of playcodi radix (broad bellflower) 8.45%, ginseng radix (*Panax ginseng*) 12.6% and peach kernel (persicae semen) 7.75%, respectively.

PROCESS II

Playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*) and peach kernel (persicae semen) obtained through Process I are pulverized into a size of 100～130 meshes to a size they would not infiltrate through a cigarette filter. A small amount of glycerin may be applied on the powder.

PROCESS III

Each 300 grams of playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*) and peach kernel (persicae semen) obtained through Process II are mixed to 99～100 grams of tobacco leaves to produce cigarettes.

EXAMPLE 2

The powdered playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*) and peach kernel (persicae semen) and tobacco leaves are given proportions of 3:3:3:991 and prior to processing the tobacco leaves for manufacturing cigarettes the powder playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*) and peach kernel (persicae semen) are applied evenly.

EXAMPLE 3

Mix 0.3% of powdered playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*) and peach kernel (persicae semen), respectively, to 99.1% of tobacco leaves before processing for the manufacture of cigarettes.

EXAMPLE 4

PROCESS I

Playcodi radix (broad bellflower) of 2～3 years old, ginseng radix (*Panax ginseng*) of 1 year old, peach kernel (persicae semen) harvested in June-August and Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)) are dried under shade for a specific period.

PROCESS 2

Each 300 g of playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*) and peach kernel (persicae semen), is pulverized to the size of 100～130 meshes, to the extent it would infiltrate through a cigarette filter. A small amount of glycerin may be applied.

PROCESS 3

Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)) is cut to the same size that of the sliced tobacco leaves to obtain 391 g.

PROCESS IV

Each 3 g of powdered playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*) and peach kernel (persicae semen), respectively, obtained through Process II and 391 g of eum-yang- kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)) cut to a specific size are mixed to 600 g of sliced tobacco leaves to manufacture cigarettes.

EXAMPLE 5

Sliced tobacco leaves and sliced herb materials are mixed at the ratio of 600:391:3:3:3 for tobacco leaves, Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)), playcodi radix (a broad bellflower), ginseng radix (*Panax ginseng*), and peach kernel (persicae semen),

respectively, to produce cigarettes.

EXAMPLE 6

Sliced tobacco leaves and sliced herb materials are mixed at the ratio of 596:395:3:3:3 for tobacco leaves, Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)), playcodi radix (a broad bellflower), ginseng radix (*Panax ginseng*), and peach kernel (persicae semen), respectively, to produce cigarettes.

EXAMPLE 7

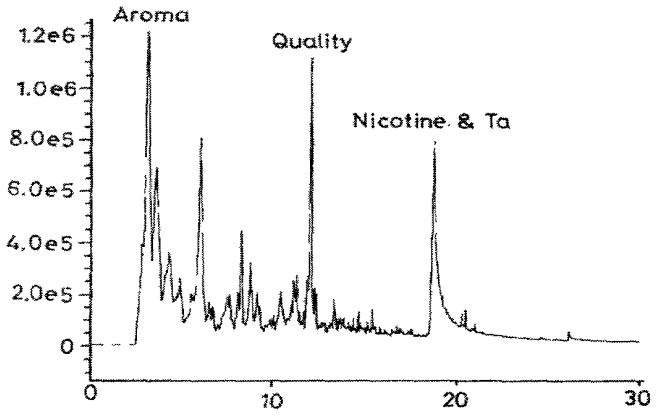
Playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*), and peach kernel (persicae semen) are mixed at ±0.1%, and sliced tobacco leaves and Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)) are mixed at a ratio of 6:4, to produce cigarettes.

The following comparison table shows the differences between the existing cigarettes and those that contain Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)), playcodi radix (a broad bellflower), ginseng radix (*Panax ginseng*), and peach kernel (persicae semen):

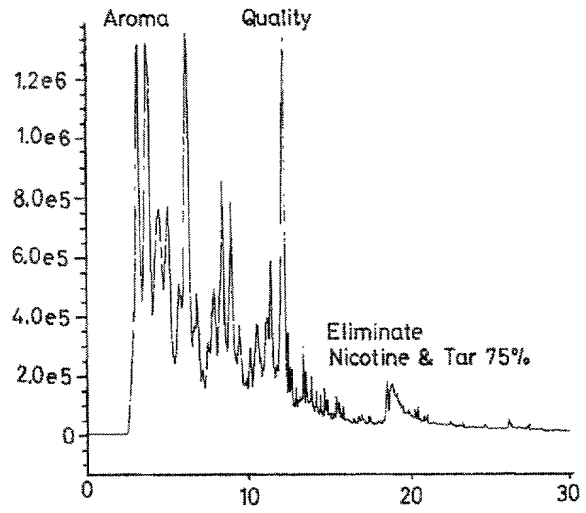
Conventional Cigarette	Cigarette containing Eum-Yang-Kwak (dried leaves of epimedii herbal tea (*Epimedium koreanum*)), playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*), and peach kernel (persicae semen):
1. Tastes burning dried grass	1. Mild smoke
2. Strong smoke	2. Mild taste
3. Taste gradually becomes bitter.	3. Nicotine and tar substantially eliminated
4. Rough Tongue	4. Long time smoking causes no dizziness
5. Aggravated fatigue.	5. No fatigue
6. Vomiting from long smoking	6. Consistent mild taste
7. Dizziness	7. Pleasant flavor hides cigarette odor.
8. Decrease of appetite.	8. No presence of offensive smoke in a small confined space
9. Dryness	9. No dryness in mouth
10. Unpleasant mouth odor caused by nicotine and tar	10. No foul breath by nicotine and tar
11. Rough tongue	11. No dryness.

As will be appreciated, the cigarettes produced according to the process of this invention will be mild and prevent a hard, obstructive phlegm in the throat and having a reduced content of nicotine and tar, the substances hazardous to human body are eliminated and protect people around the smoker from indirect adverse effect.

[Table 1] (Conventional Cigarette)



[Table 2] (Tobacco product of the prevent invention)



□

Table 1 shows the quantity of aroma, quality. and nicotine and tar emitted by the conventional tobacco and Table 2 shows the quantity of aroma, quality, and nicotine and tar emitted by the tobacco containing playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*), and peach kernel (persicae semen).

the conventional tobacco and Table 2 shows the quantity of aroma, quality, and nicotine and tar emitted by the tobacco containing playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*), and peach kernel (persicae semen).

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semen).

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the conventional tobacco and Table 2 shows the quantity of aroma, quality, and nicotine and tar emitted by the tobacco containing playcodi radix (broad bellflower), ginseng radix (*Panax ginseng*), and peach kernel (persicae semen).

A comparison of both Tables 1 and 2 shows that the tobacco of the present invention emits a lot more aroma than that of the conventional tobacco.

In regard to the quality, both the conventional tobacco and the tobacco of the present invention are similar as shown in Tables 1 and 2.

In regard to the contents of nicotine and tar, as exhibited in Tables 1 and 2, contrary to the conventional tobacco having a high content, the tobacco of the present invention has eliminated 75% of these substances.

In comparison with the conventional tobacco, the tobacco of the present invention maintains the same quality, much better aroma, and 75% of nicotine and tar removed.

Reduced contents of nicotine and tar will reduce the risk posed by these hazardous substances and will contribute in the reduction of air pollution.